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Military Health System Population Health Portal



MHSPHP Metrics Forum July 2013

Appropriate Testing for Children With Pharyngitis

And

Appropriate Treatment for Children With Upper Respiratory Infection

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- Appropriate testing for children with Pharyngitis
- Appropriate treatment for children with Upper Respiratory Infection
- Vag Pap after Hysterectomy Update
- MHSPHP G3 update



- Both measures look at a rolling 12 month period that ends 6 months prior to the metrics date
- Examples:
 - Metrics for Dec 31st 2013 look at episodes of care from 1 July 2012 – 30 Jun 2013
 - Metrics for May 2013 look at episodes of care from 1 Dec 2011-30 Nov 2012



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APPROPRIATE TESTING FOR CHILDREN WITH PHARYNGITIS



Appropriate Testing Definition

- In the 12 month measurement period, the percentage of children 2–18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus (strep) test by 3 days after the encounter. A higher rate represents better performance (i.e., appropriate testing).



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HEDIS Percentile Benchmarks

HEDIS Percentiles (50-75-90)

82.0%---87.5%---92.0%

- Children age 2-18 who had an Outpt or Emergency department (ED) encounter in the last year for pharyngitis and were dispensed antibiotic medications on or up to 3 days after this episode of care date
- Excludes encounters with any additional diagnoses
- Excludes pts who received antibiotics in the last 30 days
- Excludes pts who received antibiotics more than 30 days prior, but the script was still active on episode date
- Pt must be continuously enrolled from 30



Age Clarification

- 2 years old by start date of measurement year
- Less than 19 by last date of measurement year
- So, if they child had an episode of care when they were 18 , but turned 19 prior to the end of the measurement year, none of their episodes of care will be included

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Step 1: All encounters in 12 month measurement period that meet E&M AND ICD9 criteria

Description	CPT/E&M Codes
	99201-99205, 99211-99215, 99217-99220, 99241-99245, 99382-99385, 99341-99345, 99392-99395, 99401-99404, 99411, 99412, 99420, 99429
Emergency Dept	99281-99285 (*Do not include ED visits that result in an inpatient admission)

Description	ICD-9-CM Diagnosis
	462
Acute tonsillitis	463
	034.0



- Step 2: Remove all encounters with secondary diagnoses
- Step 3: Remove all encounters where pt filled a antibiotic prescription in preceding 30 days or had a previous antibiotic prescription active on the episode date
- Step 4: Remove all encounters if pt filled a antibiotic prescription in preceding 30 days or had an active antibiotic prescription on the episode

Description	Prescription	
Aminopenicillins	• Amoxicillin	• Ampicillin
Beta-lactamase inhibitors	• Amoxicillin-clavulanate	
First generation cephalosporins	• Cefadroxil • Cefazolin	• Cephalexin
Folate antagonist	• Trimethoprim	
Lincomycin derivatives	• Clindamycin	
Macrolides	• Azithromycin • Clarithromycin • Erythromycin	• Erythromycin ethylsuccinate • Erythromycin lactobionate • Erythromycin stearate
Miscellaneous antibiotics	• Erythromycin-sulfisoxazole	
Natural penicillins	• Penicillin G potassium • Penicillin G sodium	• Penicillin V potassium
Penicillinase-resistant penicillins	• Dicloxacillin	
Quinolones	• Ciprofloxacin • Levofloxacin	• Moxifloxacin • Ofloxacin
Second generation cephalosporins	• Cefaclor • Cefprozil	• Cefuroxime
Sulfonamides	• Sulfamethoxazole-trimethoprim	• Sulfisoxazole
Tetracyclines	• Doxycycline • Minocycline	• Tetracycline
Third generation cephalosporins	• Cefdinir • Cefixime • Cefpodoxime	• Cefibuten • Cefditoren • Ceftriaxone



- Step 5: Remove all episodes where pt not continuously enrolled 30 days prior to the episode through 3 days after
 - Our data only available monthly, so pt was enrolled for month after the encounter
- Step 6: Of the remaining episodes, select the first one per patient



- Of the denominator patients, the patients who had a streptococcus test in the 7 day period from 3 days prior to the episode through 3 days after

	CPT Codes
	87070, 87071, 87081, 87430, 87650-87652, 87880



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Patient list

- Will be a historical list that is not actionable, similar to Appropriate imaging with Low Back Pain



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Children with Pharyngitis Metric Summary

- Only includes 2-18 yr olds' outpt/ED encounters with just 1 diagnosis
- Antibiotics prescribed within 3 days after
- Compliance=pt has strep test
- Excludes kids already on antibiotics
- Only child's first visit in the 12 month measurement period will count
- To improve: provider education on proper coding and treatment. Ensure lab coding compliance



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APPROPRIATE TREATMENT FOR CHILDREN WITH UPPER RESPIRATORY INFECTION (URI)



- In the 12 month measurement period, the percentage of children 3 months–18 years of age who were given a diagnosis of upper respiratory infection (URI) and were NOT dispensed an antibiotic prescription on or 3 days after the visit.



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CRITICAL UNDERSTANDING

- The calculation of this measure is reported as an inverted rate $[1 - (\text{numerator}/\text{eligible population})]$
- A higher rate indicates appropriate treatment of children with URI (i.e., the proportion for whom antibiotics *were not* prescribed).



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HEDIS Percentile Benchmarks

HEDIS Percentiles (50-75-90)

85.3%---90.2%---94.2%



- Children age 3 months-18yo who had an Outpt or ED encounter in the last year for URI
- Excludes encounters with any additional diagnoses
- Exclude encounters where pt had a competing diagnosis on or 3 days after the episode date
- Excludes pts who received antibiotics in the last 30 days
- Excludes pts who received antibiotics more than 30 days prior, but the script was still active on episode date



Age Clarification

- 3 months old by start date of measurement year
- Less than 19 by last date of measurement year
- So, if they child had an episode of care when they were 18 , but turned 19 prior to the end of the measurement year, none of their episodes of care will be included

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Step 1: All encounters in 12 month measurement period that meet E&M AND ICD9 criteria

Description	CPT/E&M Codes
	99201-99205, 99211-99215, 99217-99220, 99241-99245, 99382-99385, 99341-99345, 99392-99395, 99401-99404, 99411,99412, 99420, 99429
Emergency Dept	99281-99285 (*Do not include ED visits that result in an inpatient admission)

Description	ICD-9-CM Diagnosis
	460
URI	465



- Step 2: Remove all encounters with secondary diagnoses
- Step 3: Remove all encounters where pt filled a antibiotic prescription in preceding 30 days or had a previous antibiotic prescription active on the episode date

Description	Prescription	
Aminopenicillins	• Amoxicillin	• Ampicillin
Beta-lactamase inhibitors	• Amoxicillin-clavulanate	
First generation cephalosporins	• Cefadroxil • Cefazolin	• Cephalexin
Folate antagonist	• Trimethoprim	
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Tetracyclines	• Doxycycline • Minocycline	• Tetracycline
Third generation cephalosporins	• Cefdinir • Cefixime • Cefpodoxime	• Cefibuten • Cefditoren • Ceftriaxone



- Step 4: Remove all episodes where pt had another encounter with a competing diagnosis (as any diagnosis, not just primary) on or in the 3 days after the episode date

Description	ICD-9-CM Diagnosis
Intestinal infections	001-009
Pertussis	033
Bacterial infection unspecified	041.9
Lyme disease and other arthropod-borne diseases	088
Otitis media	382
Acute sinusitis	461
Acute pharyngitis	034.0, 462
Acute tonsillitis	463
Chronic sinusitis	473
Infections of the pharynx, larynx, tonsils, adenoids	464.1-464.3, 474, 478.21-478.24, 478.29, 478.71, 478.79, 478.9
Prostatitis	601
Cellulitis, mastoiditis, other bone infections	383, 681, 682, 730
Acute lymphadenitis	683
Impetigo	684
Skin staph infections	686
Pneumonia	481- 486
Gonococcal infections and venereal diseases	098, 099, V01.6, V02.7, V02.8
Syphilis	090-097
Chlamydia	078.88, 079.88, 079.98
Inflammatory diseases (female reproductive organs)	131, 614-616
Infections of the kidney	590
Cystitis or UTI	595, 599.0
Acne	706.0, 706.1



- Step 5: Remove all episodes where pt not continuously enrolled 30 days prior to the episode through 3 days after
 - Our data only available monthly, so pt was enrolled for month after the encounter
- Step 6: Of the remaining episodes, select the first one per patient in the measurement year



- Of the denominator patients, identify the patients who were dispensed an antibiotic on the episode date or in the 3 days after
- Metric is an inverse calculation with higher score is better:

$$1 - (\text{numerator/denominator}) = \text{score}$$



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Children with URI Treatment Metric Summary

- Only includes 3 months-18 yr olds' outpt/ED encounters with just 1 diagnosis
- Compliance= NO Antibiotics prescribed on episode date or the 3 days after
- Excludes pts already on antibiotics
- Excludes if competing diagnosis w/in 3 days after
- Counts only child's 1st episode in measurement year
- To improve: provider education on proper coding and treatment



Benchmarks (again)

- Appropriate testing for Pharyngitis

HEDIS Percentiles (50-75-90)

82.0%---87.5%---92.0%

- Appropriate treatment for URI

HEDIS Percentiles (50-75-90)

85.3%---90.2%---94.2%